

AD-A214 134

Requirements Traceability
Matrix

For The

Cargo Movement Operations System (CMOS)

1 November 1989

Prepared under

Contract Number F11624-88-D-0001/6K12
CDRL #A004-06

DISTRIBUTION STATEMENT A

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SECTION I.

INTRODUCTION. Purpose of this Technical Report is to comment on the Requirements Traceability Matrix, CDRL A018-01, which has been produced for the Government by Evaluation Research Corporation. The results are provided on Data Item Discrepancy Worksheets as requested by the CMOS Program Office.

SUMMARY. Not Used.

CONCLUSION. Not Used.

Handwritten notes:
The above summary is for the
purpose of providing a summary of the

SECTION II.

RESULTS. Our analysis is provided in the attached Data Item Discrepancy Worksheets. Editorial comments are listed first followed by substantive remarks. Questions concerning these inputs should be directed to the originator or SAIC Team Leader at 272-2999.

ORIGINATOR CONTROL NUMBER: RTM-01
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Laccar

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: EDITORIAL: X

PAGE NUMBER: PARA. NUMBER:

COMMENT OR RECOMMENDED CHANGE:

All editorial comments have been collected on this worksheet and are arranged in page number order.

RATIONALE:

N/A

DISPOSITION: ACCEPT [] REJECT []

	PAGE #	PARAGRAPH #	COMMENT OR RECOMMENDED CHANGE
1.	A-1	10	This list of acronyms is outdated. Many items listed are not used in this document or any other CMOS document.
2.	A-1	10.2	ARPA - "Advanced Researched Project Agency" should be "Advanced Research Project Agency".
3.	C-67	SS0575	Line 9 - This statement is part of the subparagraph above.
4.	C-69	SS0590	Delete reference to PDS "3.2.1.2.1.3.y.1 (a)".
5.	C-78	SS0680	Delete reference to PDS "3.2.1.2.1.3.y.1 (a)".
6.	D-3	HI36	"TOP/IP" should be "TCP/IP".

	PAGE #	PARAGRAPH #	COMMENT OR RECOMMENDED CHANGE
7.	D-4	HI38	The software package should be identified (e.g., CHI).
8.	D-4	HI39	The printer identification should be more specific, i.e., the ALPS "P2000G" or the equivalent SMSRCR or Desktop III printer.

ORIGINATOR CONTROL NUMBER: RTM-02
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-3, C-4, C-6, F-4, F-5, F-8, PARA. NUMBER: SS0016 to SS0020,
SS0032

COMMENT OR RECOMMENDED CHANGE:

These statements are GFE (hardware) requirements and are not shall statements in the SSS. They should be deleted.

RATIONALE:

Accurately identify development contractor requirements.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-03
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-8, F-11 PARA. NUMBER: SS0047

COMMENT OR RECOMMENDED CHANGE:

This phrase is part of the previous "shall statement" (SS). Delete and incorporate in SS0046.

RATIONALE:

Correctness.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-04
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-10 PARA. NUMBER: SS0064

COMMENT OR RECOMMENDED CHANGE:

This phrase is part of the previous "shall statement". Delete and incorporate in SS0063.

RATIONALE:

Correctness.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-05
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-14, F-22 PARA. NUMBER: SS0097-98

COMMENT OR RECOMMENDED CHANGE:

These two requirements should either be combined or split into three "shall statements".

RATIONALE:

Consistency.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-06
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-28-29, F-46 PARA. NUMBER: SS0220-SS0221

COMMENT OR RECOMMENDED CHANGE:

These two requirements should either be combined or split into three "shall statements".

RATIONALE:
Consistency.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-07
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-34 PARA. NUMBER: N/A

COMMENT OR RECOMMENDED CHANGE:

Reference paragraph 3.2.1.1.5 of the SSS - the second sentence: "The LOGMARS Interface software developed by the Contractor shall provide the capability to process inchecking data from the hand-held terminal." This sentence is not stated in the RTM. The requirement should be assigned an SS and included in the RTM.

RATIONALE:

Fully identify all requirements.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-08
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-38 PARA. NUMBER: N/A

COMMENT OR RECOMMENDED CHANGE:

The statement entered between SS0296 and SS0298 needs to be assigned SS0297.

RATIONALE:

Completeness.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-09
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-47, F-79 PARA. NUMBER: SS0385

COMMENT OR RECOMMENDED CHANGE:

The last sentence is not a quote from the SSS. The correct quote is: "b. The Shipment Status Record is not sent to the SBSS for MIL STRIP intransit cargo."

RATIONALE:

Fully identify all requirements.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-10
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-65, F-108 PARA. NUMBER: SS0549

COMMENT OR RECOMMENDED CHANGE:

The term "TCN information record" should be "internal shipping record" as agreed to in the past.

RATIONALE:

Consistency.

NOTE: This was identified as a comment to the SSS dated 22 August 1989.

DISPOSITION: ACCEPT ☐ REJECT ☐

ORIGINATOR CONTROL NUMBER: RTM-11
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-66 PARA. NUMBER: N/A

COMMENT OR RECOMMENDED CHANGE:

After SS0566, the requirement in the SSS 3.2.1.2.4.2, ("Once the IDC records have been created, transmit the IDC record to etc.") needs to be included and assigned an SS number.

RATIONALE:

Satisfy all requirements.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-12
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-69, F-114 PARA. NUMBER: SS0583

COMMENT OR RECOMMENDED CHANGE:

This statement is part of the previous requirement, i.e., SS0582. Incorporate in SS0582.

RATIONALE:

Consistency.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-13
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-82 PARA. NUMBER: SS0719

COMMENT OR RECOMMENDED CHANGE:

A comment was made to the SSS that this paragraph be replaced with the following: "The CMOS shall provide the capability to maintain ATCMD and associated data in a history file (after the shipment has been cleared) on-line in non-volatile storage for 30 days. CMOS shall automatically direct all ATCMD and associated data that the retention time has expired to an off-line storage medium, e.g., magnetic tape and/or floppy disk." This was not done.

RATIONALE:

Satisfy requirements.

NOTE: This was a comment to the SSS of 25 August 1989.

DISPOSITION: ACCEPT ☐ REJECT ☐

ORIGINATOR CONTROL NUMBER: RTM-14
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-84 PARA. NUMBER: SS0729

COMMENT OR RECOMMENDED CHANGE:

These are not the HWCIs as identified in the SRS or the System Design Review. According to this specification and review, they should be the Local Area Network, the Host Processors, and the PC Workstations.

RATIONALE:

Consistency.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-15
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-86 PARA. NUMBER: SS0735

COMMENT OR RECOMMENDED CHANGE:

States arithmetic operations shall be accurate to fourth decimal while SS0110 states mathematical measurements shall be accurate to two decimal places and rounded to one decimal place. Recommend this dichotomy be resolved.

RATIONALE:

Consistency.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-16
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-87 PARA. NUMBER: SS0747

COMMENT OR RECOMMENDED CHANGE:

This SS is merely describing GFE software requirements and is not a system development requirement and should be deleted.

RATIONALE:

Consistency.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-17
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: C-95 PARA. NUMBER: SS0805

COMMENT OR RECOMMENDED CHANGE:

This SS is a duplicate of the same numbered statement on page C-94. Delete one.

RATIONALE:
Redundant.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-18
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: John Brassil

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: D-3 PARA. NUMBER: HI131

COMMENT OR RECOMMENDED CHANGE:

The word "processor" is incorrectly used based on the contents of the paragraph. It appears this paragraph is intended to discuss only the processor (CPU). Therefore, all other items mentioned (i.e., cabinet, cards, etc.) should be included under paragraph HI3.

RATIONALE:

Accurately describe capability.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-19
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: John Brassil

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: D-3 PARA. NUMBER: HI32

COMMENT OR RECOMMENDED CHANGE:

This paragraph is in disagreement with SC36. The type of graphic quality should be consistent.

RATIONALE:

Clearly and consistently state capabilities.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-20
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: John Brassil

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: D-3 PARA. NUMBER: HI33

COMMENT OR RECOMMENDED CHANGE:

This capability requires 2 MB of memory whereby the SSS (page 77) requires 4 MB. The latter is thought to be correct.

RATIONALE:

Correctly define capabilities.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-21
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: John Brassil

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: D-3 PARA. NUMBER: HI34

COMMENT OR RECOMMENDED CHANGE:

The SS calls for a 360K and 1.2 MB drive while the SSS (page 78) requires two 360K floppy drives. The correct requirement should be stated.

RATIONALE:

State all requirements accurately.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-22
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: John Brassil

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: D-4 PARA. NUMBER: HI13A

COMMENT OR RECOMMENDED CHANGE:

For clarity, change paragraph title to "Laser Printer". Also change the text of the paragraph since the printer will be used for other than just bar coding.

RATIONALE:

Clarity and accuracy.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-23
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: John Brassil

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: D-12 PARA. NUMBER: SC3E

COMMENT OR RECOMMENDED CHANGE:

Change "Z-248 PC Workstation" to "AT&T 3B2/600G" and "Sperry compatible converter" to "ICI".

RATIONALE:

Accurately describe capability.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-24
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: E-40 PARA. NUMBER: SC280

COMMENT OR RECOMMENDED CHANGE:

This paragraph designation is not consistent with the use of alphabetic characters to extend subcomponent naming found in other sections of this document.

RATIONALE:

Consistency.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-25
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: F-1 PARA. NUMBER: Appendix F

COMMENT OR RECOMMENDED CHANGE:

The methodology used in allocating capabilities (SC's and HI's) to each requirement was unknown to us. Therefore, it was difficult to assess the relative merit of this Appendix and whether it, in fact, reflected the proper allocation of capabilities to satisfy the functional requirements. A few examples follow:

- SS0257, High level "Process Inbound Cargo" is listed but not "Outbound", although a large number of "Outbound Message Formatters" are listed.
- SS0275-81, High level "Outbound" listed but not "Inbound". Yet, two lower level "Inbound Processes" are listed.
- SS0283 and 285, The "ORACLE" capability is listed for the first and "Process Outbound" for the second. It seems that they are identical requirements referring to different reports.
- SS0680, The "SBSS Adapter" is listed but the "DDN" and "LAN Adapters" which are not listed should be depicted.
- SS0722, "Process Inbound" with one subordinate ("Process Inbound Air Freight") is listed but "Process Outbound Air Freight" and "Process Outbound" are not listed.

There are other similar occurrences throughout Appendix F.

RATIONALE:

To clarify the methodology used to assign capabilities to requirements.

DISPOSITION: ACCEPT [] REJECT []

ORIGINATOR CONTROL NUMBER: RTM-26
TECH OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A018-01

DATE: 10/27/89

ORIGINATOR NAME: Ron Lacour

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: F-9 PARA. NUMBER: SS0037

COMMENT OR RECOMMENDED CHANGE:

This paragraph cites "Ada" while capability SC37 refers to "C" language.
Suggest deleting this paragraph.

RATIONALE:

Consistency.

DISPOSITION: ACCEPT [] REJECT []